



ecology and environment, inc.

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International Specialists in the Environment

MEMORANDUM

DATE: May 11, 1989

TO: Rick McKenna, NUS, Arlington

THRU: Jeffrey Villnow, FIT-OM, E & E, Seattle

FROM: J.B. Hunt, E & E, Seattle *JN*

SUBJ: Draft Revised HRS Field Testing Project
Cost Reporting Information Forms for
Spokane Junkyard and Associated Site
Spokane, Washington

REF: TDD F10-8712-03
PAN FWA0526HA

CC: John Osborn, FIT-RPO, USEPA, Region X
Deborah Flood, HWD-SM, USEPA, Region X
David Bennett, NPL Coordinator, USEPA, Region X

Attached is a copy of the Draft Revised HRS Field Testing Project - Cost Reporting Information Forms for Spokane Junkyard and Associated Site, Spokane, Washington. Please contact David Bennett, USEPA, Region X, at your earliest convenience to schedule a conference call.

JH:taa

Attachment

133293

USEPA SF



1108063

DRAFT REVISED HRS FIELD TESTING PROJECT

COST REPORTING INFORMATION FORMS

SITE NAME: SPOKANE JUNKYARD

LOCATION: SPOKANE WASHINGTON

PREPARER: JB HUNT

DATE: 5-9-89

Note: The site name and date should be placed in the top right corner on each page of the cost reporting information forms. Comments should be annotated at the bottom of the appropriate cost form, on the back of the cost form, or attach additional pages. If the back of these forms is utilized, be sure to make two-sided copies. All summaries of cost reporting information should be completed after detailed costs are recorded. Please read through all of the cost reporting information forms before beginning this task.

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SUMMARY OF COST REPORTING INFORMATION

(Page 1 of 2)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|---------------------------------------|---|--------------|
| GENERAL TASKS | | |
| ● FIT General Tasks | <u>111</u> | <u>45550</u> |
| ● Subcontractor Assistance | <u>0</u> | <u>0</u> |
| WASTE CHARACTERISTICS | | |
| ● Waste Quantity | <u>194</u> | <u>9700</u> |
| ● Identification of Site Contaminants | <u>INCLUDED UNDER WASTE QUANTITY CATEGORY</u> | |
| AIR PATHWAY | | |
| ● Subcontractor Assistance | <u>0</u> | <u>0</u> |
| ● Observed Release | <u>30</u> | <u>1500</u> |
| ● Release Likelihood | <u>12</u> | <u>600</u> |
| ● Waste Characteristics | <u>2</u> | <u>100</u> |
| ● Targets | <u>66</u> | <u>3300</u> |
| GROUND WATER PATHWAY | | |
| ● General Considerations | <u>30</u> | <u>1500</u> |
| ● Subcontractor Assistance | <u>0</u> | <u>0</u> |
| ● FIT SURFACE WORK | <u>10</u> | <u>500</u> |
| ● Geophysical Work | <u>70</u> | <u>3500</u> |
| ● Observed Release | <u>30</u> | <u>1500</u> |
| ● Release Likelihood | <u>18</u> | <u>900</u> |
| ● Waste Characteristics | <u>2</u> | <u>100</u> |
| ● Targets | <u>50</u> | <u>2500</u> |

SUMMARY OF COST REPORTING INFORMATION
(Page 2 of 2)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|---|----------------------------|--------------------|
| SURFACE WATER PATHWAY | | |
| ● General Considerations | <u>24</u> | <u>1200</u> |
| ● Subcontractor Assistance | <u>0</u> | <u>0</u> |
| ● Observed Release | <u>0</u> | <u>0</u> |
| ● Release Likelihood | <u>0</u> | <u>0</u> |
| ● Waste Characteristics | <u>0</u> | <u>0</u> |
| ● Drinking Water Threat Targets | <u>0</u> | <u>0</u> |
| ● Human Food Chain Threat Targets | <u>0</u> | <u>0</u> |
| ● Recreation Threat Targets | <u>0</u> | <u>0</u> |
| ● Environmental Threat Targets | <u>0</u> | <u>0</u> |
| ONSITE EXPOSURE PATHWAY | | |
| ● Subcontractor Assistance | <u>0</u> | <u>0</u> |
| ● Resident Population Threat Likelihood of Exposure | <u>25</u> | <u>1250</u> |
| ● Resident Population Threat Targets | <u>4</u> | <u>200</u> |
| ● Waste Characteristics | <u>INCLUDED UNDER AIR</u> | |
| ● Nearby Population Threat Likelihood of Exposure | <u>12</u> | <u>600</u> |
| ● Nearby Population Threat Targets | <u>4</u> | <u>200</u> |
| OVERALL TOTALS | <u>583</u> | <u>2950</u> |

Comments: SURFACE WATER PATHWAY WAS NOT EVALUATED DUE TO A LACK OF MIGRATION PATHS FROM THE SITE

GENERAL TASKS

(Page 1 of 2)

| <u>FIT GENERAL TASKS</u> | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|---|------------------------|-------------|
| Project Planning/Management/Coordination | 314 | 15700 |
| • Preparing planning documents | 20 | |
| • Reviewing project deliverables | 120 | |
| • Project coordination | 20 | |
| • Initial site reconnaissance | 24 | |
| • Project management | 130 | |
| Mobilization/Demobilization/Travel | 157 | 7850 |
| • Equipment preparation | 60 | |
| • Field team orientation/preparation | 10 | |
| • Travel | 47 | |
| • Decontamination/waste disposal | 40 | |
| Data Validation/Review | 120 | 6000 |
| • Internal QC/QA of analytical data | | |
| Physical Preparation of Draft Revised HRS Package | 300 | 15000 |
| • Writing the documentation record | | |
| • Determining draft revised HRS scores | | |
| • Assembling the overall package | | |
| Physical Preparation of SI Report | | |
| • Data Reduction | | |
| • Data Interpretation | | |
| • Writing | | |
| QA/QC blanks & spikes | 20 | 1000 |
| 3 TOTAL | 911 | 45550 |

GENERAL TASKS

(Page 2 of 2)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|---|---|--------------|
| <u>SUBCONTRACTOR ASSISTANCE (Non-Pathway Specific)</u> | | |
| For which activities were subcontracts awarded? | | |
| <u> </u> Waste hauling | <u>N/A</u> Laboratory analysis | |
| <u>N/A</u> Surveying | <u>N/A</u> Other (describe in comments below) | |
| For multiple non-pathway specific subcontracts, attach additional pages. | | |
| • Preparation of specifications | <u> X </u> | <u> X </u> |
| • Reviews/technical evaluations | <u> X </u> | <u> X </u> |
| • Supervision of actual work | <u> X </u> | <u> X </u> |
| • Subcontractor costs | N/A | <u> X </u> |
| Briefly describe the task(s) performed by the subcontractor(s) in comments below. | | |
| | | |
| TOTALS | <u> X </u> | <u> X </u> |

Comments:

WASTE CHARACTERISTICS

(Page 1 of 2)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> <small>(ASSUME \$0.22/LOE)</small> |
|---|------------------------|--|
| <u>MULTIPLE PATHWAYS</u> | | |
| Waste Quantity | | |
| ● Background data collection/review of existing data | <u>62</u> | <u>3000</u> |
| * Was aerial photography used? <u>YES</u> (AERIAL PROVIDED BY EPA VIA TAT RESPONSE) | | |
| * Were previous samples collected to determine waste quantity? <u>YES</u> | | |
| If yes, number of samples collected? <u>840</u> | | |
| ● Field observations | <u>12</u> | <u>500</u> |
| * Were measurements taken? <u>YES</u> | | |
| ● Special field tasks (only to determine waste quantity) | | |
| * Were samples recently collected to determine waste quantity? <u>YES</u> | | |
| If yes, number of samples collected? <u>31</u> (INCLUDES PACKING) | <u>82</u> | <u>4000</u> |
| • Geophysical techniques | <u>24</u> | <u>1200</u> |
| ● Evaluation methodology | | |
| <u>X_c</u> Hazardous constituent quantity | <u>X_c</u> | Source volume |
| _____ Site wastestream quantity as deposited | <u>X_{CS}</u> | Source area |
| <u>X_c</u> Source waste quantity as deposited | | |
| | | <small>CS = CONTAMINATED SOIL C = CONTAINERS</small> |
| ● Assignment of HRS values | <u>20</u> | <u>1000</u> |
| * Was the same waste quantity value assigned for the air, ground water, and surface water pathways? <u>YES</u> (FOR AIR & GW) | | |
| If no, describe differences in comments below. | | |
| * Was the same waste quantity amount documented for the onsite exposure pathway? <u>YES</u> | | |
| If no, describe differences in comments below. | | |
| TOTALS | <u>194</u> | <u>9700</u> |

Comments:

WASTE CHARACTERISTICS

(Page 2 of 2)

MULTIPLE PATHWAYS (concluded)

Identification of Site Contaminants

- Background data collection/review of existing data

- * Were specific samples previously collected only to identify site contaminants? YES

- Number of soil samples 848

- Number of sediment samples N/A

- Number of source samples N/A

- Number of other samples N/A

- Evaluation of recently collected data

- * Were specific samples recently collected only to identify site contaminants? YES

- Number of soil samples 31

- Number of sediment samples N/A

- Number of source samples N/A

- Number of other samples N/A

LEVEL OF
EFFORT

COST

INCLUDED UNDER WASTE QUANTITY

INCLUDED UNDER WASTE QUANTITY

X X

X X

X X

X X

INCLUDED UNDER WASTE QUANTITY

X X

X X

X X

TOTALS

X X

Comments:

SUMMARY OF AIR PATHWAY FACTORS
(Page 1 of 7)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|---------------------------|----------------------------|--------------------|
| SUBCONTRACTOR ASSISTANCE | <u>2</u> | <u>2</u> |
| OBSERVED RELEASE | <u>30</u> | <u>1500</u> |
| RELEASE LIKELIHOOD | <u>12</u> | <u>600</u> |
| WASTE CHARACTERISTICS | <u>2</u> | <u>100</u> |
| TARGETS | <u>66</u> | <u>3300</u> |
| AIR PATHWAY TOTALS | <u>112</u> | <u>5500</u> |

Comments:

AIR PATHWAY FACTORS

(Page 2 of 7)

SUBCONTRACTOR ASSISTANCE (Pathway Specific)

For multiple subcontracts, attach additional pages.

- Preparation of specifications
- Reviews/technical evaluations
- Supervision of actual work
- Subcontractor costs

LEVEL OF EFFORT

COST

N/A

n/A

N/A

n/A

N/A

2/4

N/A

n/A

Briefly describe the task(s) performed by the subcontractor(s) in comments below.

TOTALS

~14

N/A

Comments:

AIR PATHWAY FACTORS

(Page 3 of 7)

| | LEVEL OF EFFORT | COST |
|---|--------------------|-------------|
| <u>OBSERVED RELEASE</u> | | |
| Review of Previous Sampling Data to Support an Observed Release | | |
| • Collection/review of existing background information | <u>20</u> | <u>1000</u> |
| • Number of vapor samples <u>2</u> | <u>2</u> | <u>2</u> |
| • Number of particulate samples <u>2</u> | <u>2</u> | <u>2</u> |
| • Number of other samples <u>2</u> | <u>2</u> | <u>2</u> |
| * Would these samples normally have been collected for HRS purposes? <u>N/A</u> | | |
| Sampling Conducted to Support an Observed Release | | |
| • Number of vapor samples <u>2</u> | <u>2</u> | <u>2</u> |
| • Number of particulate samples <u>2</u> | <u>2</u> | <u>2</u> |
| • Number of other samples <u>2</u> | <u>2</u> | <u>2</u> |
| * Would sampling have been conducted if there had been no previous data? <u>N/A</u> | | |
| * Were onsite meteorological conditions measured? <u>NO</u> | <u>2</u> | <u>2</u> |
| * Would sampling have been conducted during a different time of year? <u>YES</u> | | |
| Field Screening Conducted to Support an Observed Release | | |
| • Number of vapor samples <u>2</u> | <u>2</u> | <u>2</u> |
| • Number of particulate samples <u>2</u> | <u>2</u> | <u>2</u> |
| • Number of other samples <u>2</u> | <u>2</u> | <u>2</u> |
| TOTALS | <u>20</u> | <u>1000</u> |

Comments:

AIR PATHWAY FACTORS

(Page 4 of 7)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|---|----------------------------|-------------------|
| <u>OBSERVED RELEASE (concluded)</u> | | |
| Attribution of Contaminants | | |
| ● Collection/review of existing background information | <u>12</u> | <u>500</u> |
| * Do other nearby sources of potential air contamination exist? <u>NO</u> | | |
| * Do nearby sources of potential air contamination have similar contaminants to those associated with the site? <u>NO</u> | | |
| * Was an observed air release previously established for the site? <u>NO</u> | | |
| ● Evaluation of recently collected data | <u>2</u> | <u>2</u> |
| * Was an observed air release established for the site? <u>NO</u> | | |
| TOTALS | <u><u>14</u></u> | <u><u>502</u></u> |

Comments:

AIR PATHWAY FACTORS

(Page 5 of 7)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|----------------------------|--------------------------------------|
| <u>RELEASE LIKELIHOOD</u> | | |
| Source Type | | |
| ● Background data collection/review | | <u>INCLUDED UNDER WASTE QUANTITY</u> |
| ● Onsite observations | <u>4</u> | <u>2000</u> |
| * Do multiple source types exist at the site? <u>YES</u> | | |
| * Special field tasks used? <u>NO</u> | | |
| If yes, describe in comments below. | | |
| Source Containment | | |
| ● Background data collection/review | <u>2</u> | <u>1000</u> |
| ● Onsite observations | <u>N/A</u> | <u>N/A</u> |
| Source Gas Mobility | | |
| ● Background data collection/review | <u>2</u> | <u>1000</u> |
| ● Determination of appropriate contaminants | <u>2</u> | <u>1000</u> |
| * Was sampling required? <u>NO</u> | | |
| Source Particulate Mobility | | |
| ● Background data collection/review | <u>2</u> | <u>1000</u> |
| * Was the P-E Index map used? <u>YES</u> | | |
| TOTALS | <u>12</u> | <u>6000</u> |
| Comments: | | |

AIR PATHWAY FACTORS

(Page 6 of 7)

LEVEL OF
EFFORT

COST

WASTE CHARACTERISTICS (Pathway Specific)

Waste Quantity

- Evaluation methodology

_____ Hazardous constituent quantity

_____ Source volume

_____ Site wastestream quantity as deposited

X Source area FOR CONTAMINATED SOIL
+ DRUMS

_____ Source waste quantity as deposited

- Assignment of HRS value

- * Was the same waste quantity value assigned for other pathways? YES

UNDER WASTE CHARACTERISTICS
FOR MULTIPLE PATHWAYS

If no, describe difference in comments below.

Toxicity/Mobility

- * Were look-up table values available for site-specific substances? YES

2

100

TOTALS

2

100

Comments:

AIR PATHWAY FACTORS

(Page 7 of 7)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|-----------------------------------|-------------|
| <u>TARGETS</u> | | |
| MEI | | |
| ● Background data collection/review | <u>12</u> | <u>500</u> |
| ● Field observations (<i>sampling</i>) | <u>30</u> | <u>1500</u> |
| Population Incidence | | |
| ● Background data collection/review | <u>16</u> | <u>800</u> |
| * Were any of the following approaches used? | | |
| <div style="display: flex; justify-content: space-between;"> <u> </u> Topo maps <u> </u> Aerial photos <u> </u> Automated databases </div> <div style="display: flex; justify-content: space-between;"> <u> X </u> County census density data <u> </u> Other approaches (describe in comments below) </div> | | |
| ● Field observations | <u>INCLUDED UNDER MEI SECTION</u> | |
| Land Use | | |
| ● Background data collection/review | <u>4</u> | <u>200</u> |
| * Specialized approaches used? <u>NO</u> | | |
| If yes, describe in comments below. | | |
| ● Field observations | <u>2</u> | <u>100</u> |
| Sensitive Environments | | |
| ● Background data collection/review | <u>2</u> | <u>100</u> |
| * Specialized approaches used? <u>YES</u> (<i>US FISH AND WILDLIFE</i>) | | |
| If yes, describe in comments below. | | |
| * Was Natural Heritage Program information used? <u>YES</u> | | |
| ● Field observations | <u>2</u> | <u>100</u> |
| TOTALS | <u>60</u> | <u>3300</u> |

Comments:

SUMMARY OF GROUND WATER PATHWAY FACTORS
(Page 1 of 10)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|----------------------------|--------------|
| GENERAL GROUND WATER PATHWAY CONSIDERATIONS | <u>32</u> | <u>1500</u> |
| SUBCONTRACTOR ASSISTANCE | | |
| • Subsurface Work | <u>2</u> | <u>2</u> |
| • Other Subcontractor Assistance | <u>2</u> | <u>2</u> |
| <i>FIT SUBSURFACE WORK</i> | <u>12</u> | <u>500</u> |
| GEOPHYSICAL WORK | <u>72</u> | <u>3500</u> |
| OBSERVED RELEASE | <u>32</u> | <u>1500</u> |
| RELEASE LIKELIHOOD | <u>18</u> | <u>900</u> |
| WASTE CHARACTERISTICS | <u>2</u> | <u>100</u> |
| TARGETS | <u>50</u> | <u>2500</u> |
| GROUND WATER PATHWAY TOTALS | <u>210</u> | <u>12500</u> |

Comments:

GROUND WATER PATHWAY FACTORS

(Page 2 of 10)

LEVEL OF
EFFORT

COST

GENERAL GROUND WATER PATHWAY CONSIDERATIONS

Identification/Description of Aquifer Boundaries

- Collection/review of existing background information

30

1500

- * Name(s) of aquifer(s) of concern?
Indicate with a check those used for drinking water.

X Aquifer #1 SPOKANE VALLEY - RATHDRUM PLAIN AQUIFER

 Aquifer #2 N/A

 Aquifer #3 N/A

 Others N/A

- * Are there underlying aquifer interconnections
within a two-mile radius from the site? N/A

If yes, which water-bearing layers were considered
to act as a single hydrologic unit? N/A

- * Were underlying karst aquifers present? N/A

- * What sources of information were evaluated?

X Regional geologic literature (e.g., USGS)

X Previous well logs

 Other site-specific information (describe in comments below)

- * Were aquifer discontinuities established within
the four-mile target distance limit? NO

- Evaluation of special field tasks (i.e., pump tests)

0

0

- * Have pumps tests been conducted? NO

If yes, were pump tests used to
establish aquifer interconnections? NO

TOTALS

30

1500

Comments:

GROUND WATER PATHWAY FACTORS

(Page 3 of 10)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|---|--|-------------|
| <u>SUBCONTRACTOR ASSISTANCE</u> (Pathway Specific) | | |
| Subsurface Work | | |
| For which activities were subcontracts awarded to support subsurface work for the ground water pathway? <i>NONE</i> | | |
| _____ Installing wells | _____ Geophysical work | |
| _____ Installing boreholes | _____ Other (describe in comments below) | |
| For multiple subcontracts, attach additional pages. | | |
| ● Preparation of specifications | <u>N/A</u> | <u>Ø</u> |
| ● Reviews/technical evaluations | <u>N/A</u> | <u>Ø</u> |
| ● Supervision of actual work | <u>N/A</u> | <u>Ø</u> |
| * Why was subsurface work performed? | | |
| _____ Observed release | _____ Characterize site geology | |
| _____ Other (describe in comments below) | | |
| ● Subcontractor costs | | |
| - Mobilization/demobilization | N/A | <u>Ø</u> |
| - Number of monitoring wells drilled _____ | N/A | <u>Ø</u> |
| * Average cost per foot? _____ | | |
| - Number of boreholes drilled _____ | N/A | <u>Ø</u> |
| * Average cost per foot? _____ | | |
| - Materials | N/A | <u>Ø</u> |
| - Other costs (e.g., decontamination, development, waste disposal, etc.) | N/A | <u>Ø</u> |
| Briefly describe the task(s) performed by the subcontractor(s) in comments below. | | |
| TOTALS | <u>Ø</u> | <u>Ø</u> |

Comments:

GROUND WATER PATHWAY FACTORS

(Page 4 of 10)

LEVEL OF
EFFORT

COST

SUBCONTRACTOR ASSISTANCE (Pathway Specific) (concluded)

Other Subcontractor Assistance

For multiple subcontracts, attach additional pages.

- Preparation of specifications
- Reviews/technical evaluations
- Supervision of actual work
- Subcontractor costs

114

2

2/4

Q

N/A

2

N/A

2

Briefly describe the task(s) performed by the subcontractor(s) in comments below.

TOTALS

8

2

Comments:

SUBSURFACE WORK PERFORMED BY FIT

10

500

Description: UTILIZED PORTABLE POWER AUGER TO NEGOTIATE FOUR BOREHOLES TO A 15-FOOT DEPTH. THE WORK WAS PERFORMED IN SUPPORT OF DATA COMPILED ON SITE-SPECIFIC SUBSURFACE SOIL, ADSORPTIVE CAPACITY (VIA TOTAL ORGANIC CARBON), HYDRAULIC CONDUCTIVITY (VIA GRAIN SIZE)

GROUND WATER PATHWAY FACTORS

(Page 5 of 10)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|---|----------------------------|-----------------|
| <u>GEOPHYSICAL WORK (Pathway Specific)</u> | | |
| ● Review of previous geophysical information | <u>20</u> | <u>1000</u> |
| * Was sufficient existing geophysical information available? <u>YES</u> | | |
| * What type of geophysical work was previously performed? | | |
| <u> </u> Ground penetrating radar | <u> </u> | <u> </u> |
| <u> </u> Resistivity | <u> </u> | <u> </u> |
| <u> X </u> Electromagnetics | <u> </u> | <u> </u> |
| <u> </u> Seismic refraction | <u> </u> | <u> </u> |
| <u> </u> Other (describe in comments below) | | |
| - Level-of-effort associated with previous geophysical work | <u>40</u> | <u>2000</u> |
| ● Geophysical work recently performed | <u>N/A</u> | <u>0</u> |
| * What type of geophysical work was recently performed? | | |
| <u> N/A </u> Ground penetrating radar | <u> N/A </u> | <u> </u> |
| <u> </u> Resistivity | <u> </u> | <u> </u> |
| <u> N/A </u> Electromagnetics | <u> N/A </u> | <u> </u> |
| <u> </u> Seismic refraction | <u> </u> | <u> </u> |
| <u> N/A </u> Other (describe in comments below) | | |
| ● Evaluation of data collected by geophysical work | <u>10</u> | <u>500</u> |
| If applicable, describe in comments below why geophysical work was conducted. | | |
| TOTALS | <u>70</u> | <u>3500</u> |

Comments: PAST GEOPHYSICAL WORK WAS PERFORMED TO EVALUATE THE EXISTENCE OF SUSPECTED BURIED DRUMS ON SITE PROPERTY

GROUND WATER PATHWAY FACTORS

(Page 6 of 10)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|---|----------------------------|--------------------|
| <u>OBSERVED RELEASE</u> | | |
| Review of Previous Sampling Data to Support an Observed Release | | |
| • Collection/review of existing background information | <u>12</u> | <u>500</u> |
| • Number of monitoring well samples <u>2</u> | <u>2</u> | <u>2</u> |
| • Number of other ground water samples <u>2</u> | <u>2</u> | <u>2</u> |
| * Would these samples normally have been collected for HRS purposes? <u>YES</u> | | |
| * Why was previous sampling conducted? <u>N/A</u> | | |
| <u>N/A</u> Observed release <u>N/A</u> Target population | | |
| <u>N/A</u> Other (describe in comments below) | | |
| Sampling Conducted to Support an Observed Release | | |
| • Number of monitoring well samples <u>2</u> | <u>2</u> | <u>2</u> |
| • Number of other ground water samples <u>3</u> | <u>12</u> | <u>600</u> |
| * Would sampling have been conducted if there had been no previous data? <u>YES</u> | | |
| * Was sampling conducted to establish a ground water target population? <u>YES</u> | | |
| Field Screening Conducted to Support an Observed Release | | |
| • Number of monitoring well samples <u>2</u> | <u>2</u> | <u>2</u> |
| • Number of other ground water samples <u>2</u> | <u>2</u> | <u>2</u> |
| TOTALS | <u><u>22</u></u> | <u><u>1100</u></u> |
| Comments: | | |

GROUND WATER PATHWAY FACTORS

(Page 7 of 10)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|----------------------------|-------------|
| <u>OBSERVED RELEASE (concluded)</u> | | |
| Attribution of Contaminants | | |
| ● Collection/review of existing background information | <u>4</u> | <u>2000</u> |
| * Do other nearby sources of potential ground water contamination exist? <u>NO</u> | | |
| * Do nearby sources of potential ground water contamination have similar contaminants to those associated with the site? <u>NO</u> | | |
| * Was an observed ground water release previously established for the site? <u>NO</u> | | |
| If yes, for which aquifer(s)? <u>N/A</u> | | |
| * Was the prevailing ground water flow direction determined by reviewing background or existing data? <u>YES</u> | | |
| ● Evaluation of recently collected data | <u>4</u> | <u>2000</u> |
| * Was an observed ground water release established for the site? <u>NO</u> | | |
| If yes, for which aquifer(s)? <u>N/A</u> | | |
| * Was the prevailing ground water flow direction determined by reviewing recent data? <u>YES</u> | | |
| TOTALS | <u>8</u> | <u>4000</u> |

Comments:

GROUND WATER PATHWAY FACTORS

(Page 8 of 10)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|----------------------------|-------------|
| <u>RELEASE LIKELIHOOD</u> | | |
| Depth to Aquifer/Hydraulic Conductivity | | |
| ● Background data collection/review | <u>2</u> | <u>100</u> |
| * Was sufficient existing information available? <u>NO</u> | | |
| * Subsurface field work needed? <u>YES</u> | | |
| ● Evaluation of data collected by subsurface field work | <u>3</u> | <u>150</u> |
| * Were laboratory tests performed? <u>YES</u> | | |
| Sorptive Capacity | | |
| ● Background data collection/review | <u>2</u> | <u>100</u> |
| * Was sufficient existing information available? <u>NO</u> | | |
| * Subsurface field work needed? <u>YES</u> | | |
| ● Evaluation of data collected by subsurface field work | <u>5</u> | <u>250</u> |
| * Were laboratory tests performed? <u>YES</u> | | |
| Containment | | |
| ● Background data collection/review | <u>4</u> | <u>200</u> |
| ● Onsite observations | <u>2</u> | <u>100</u> |
| Comments: | | |
| TOTALS | <u>18</u> | <u>900</u> |

GROUND WATER PATHWAY FACTORS
(Page 9 of 10)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|----------------------------|----------------|
| <u>WASTE CHARACTERISTICS (Pathway Specific)</u> | | |
| Waste Quantity | | |
| <ul style="list-style-type: none">● Evaluation methodology<ul style="list-style-type: none"><u> </u> Hazardous constituent quantity <u> </u> Source volume<u> </u> Site wastestream quantity as deposited <u> X </u> Source area<u> </u> Source waste quantity as deposited● Assignment of HRS value<ul style="list-style-type: none">* Was the same waste quantity value assigned for other pathways? <u> YES </u><li style="padding-left: 40px;">If no, describe difference in comments below. | | |
| <u>UNDER WASTE CHARACTERISTICS FOR MULTIPLE PATHWAYS</u> | | |
| Toxicity /Mobility | <u> 2 </u> | <u> 100 </u> |
| <ul style="list-style-type: none">● Assignment of HRS value<ul style="list-style-type: none">* Were look-up table values available for site-specific substances? <u> YES </u> | | |
| <u>UNDER WASTE CHARACTERISTICS FOR MULTIPLE PATHWAYS</u> | | |
| | TOTALS | |
| | <u> 2 </u> | <u> 100 </u> |
| Comments: | | |

GROUND WATER PATHWAY FACTORS

(Page 10 of 10)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|---|---|---------------------------|
| <u>TARGETS</u> | | |
| Ground Water Use | | |
| ● Background data collection/review | <u>12</u> | <u>6000</u> |
| * Any underlying sole source aquifers? <u>YES</u> | | |
| MEI | | |
| ● Background data collection/review | <u>10</u> | <u>5000</u> |
| ● Field observations | <u>2</u> | <u>1000</u> |
| Population | | |
| ● Background data collection/review | <u>20</u> | <u>10000</u> |
| * Were county census density data used? <u>YES</u> | | |
| * Was municipal water-supply information utilized? <u>YES</u> | | |
| * Were any automated databases used? <u>NO</u> | | |
| If yes, describe in comments below. | | |
| ● Review of previous sampling data | <u>4</u> | <u>2000</u> |
| - Number of residential well samples <u>0</u> | <u>0</u> | <u>0</u> |
| - Number of municipal well samples <u>2</u> | <u>2</u> | <u>1000</u> |
| * Would these samples normally have been collected for HRS purposes? <u>YES</u> | | |
| ● Ground water targets sampling | | |
| - Number of residential well samples <u>1</u> | | |
| - Number of municipal well samples <u>2</u> | | |
| | } <u>UNDER SAMPLING FOR AN OBSERVED RELEASE</u> | |
| Comments: | TOTALS | <u>50</u> <u>25000</u> |

SUMMARY OF SURFACE WATER PATHWAY FACTORS
(Page 1 of 14)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|---|----------------------------|--------------------|
| GENERAL SURFACE WATER PATHWAY CONSIDERATIONS | | |
| • Identification of Surface Water Migration Path(s) | <u>20</u> | <u>1000</u> |
| • Stream Flow | <u>4</u> | <u>200</u> |
| SUBCONTRACTOR ASSISTANCE | <u>N/A</u> | <u>0</u> |
| OBSERVED RELEASE | <u>N/A</u> | <u>0</u> |
| RELEASE LIKELIHOOD | <u>N/A</u> | <u>0</u> |
| WASTE CHARACTERISTICS | <u>N/A</u> | <u>0</u> |
| DRINKING WATER THREAT TARGETS | <u>N/A</u> | <u>0</u> |
| HUMAN FOOD CHAIN THREAT TARGETS | <u>N/A</u> | <u>0</u> |
| RECREATION THREAT TARGETS | <u>N/A</u> | <u>0</u> |
| ENVIRONMENTAL THREAT TARGETS | <u>N/A</u> | <u>0</u> |
| SURFACE WATER PATHWAY TOTALS | <u><u>24</u></u> | <u><u>1200</u></u> |

Comments: SURFACE WATER PATHWAY WAS NOT EVALUATED.

SURFACE WATER PATHWAY FACTORS

(Page 2 of 14)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|----------------------------|-------------|
| <u>GENERAL SURFACE WATER PATHWAY CONSIDERATIONS</u> | | |
| Identification/Description of Surface Water Migration Path(s) | | |
| <ul style="list-style-type: none"> ● Collection/review of existing background information | _____ | _____ |
| <ul style="list-style-type: none"> <ul style="list-style-type: none"> * Were multiple surface water migration paths evaluated (i.e, two or more watersheds)? _____ If yes, enter information for Watersheds "A" and "B." * Name(s) of surface water(s) considered as part of the target distance limit? Indicate with a check those used for drinking water. For Watershed "A": _____ Surface water #1 _____ _____ Surface water #2 _____ _____ Surface water #3 _____ _____ Others _____ _____ Others _____ For Watershed "B": _____ Surface water #1 _____ _____ Surface water #2 _____ _____ Surface water #3 _____ _____ Others _____ _____ Others _____ | | |
| <ul style="list-style-type: none"> ● Field observations | _____ | _____ |
| | TOTALS | _____ |
| Comments: | | |

SURFACE WATER PATHWAY FACTORS

(Page 3 of 14)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|---|----------------------------|--------------|
| <u>GENERAL SURFACE WATER PATHWAY CONSIDERATIONS</u> (concluded) | | |
| Stream Flow | | |
| ● Background data collection/review | _____ | _____ |
| * Was existing stream flow information available? _____ _____ USGS _____ Other Federal agency _____ State/local agency _____ Other sources (describe in comments below) | | |
| * Were any automated databases used? _____ If yes, describe in comments below. | | |
| ● Field observations/measurements | _____ | _____ |
| * Was stream flow determined in the field? _____ * Were quiet-flowing rivers present along the surface water migration path? _____ | | |
| TOTALS | ===== | ===== |
| Comments: | | |

SURFACE WATER PATHWAY FACTORS

(Page 4 of 14)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|---|----------------------------|-------------|
| <u>SUBCONTRACTOR ASSISTANCE</u> (Pathway Specific) | | |
| For multiple subcontracts, attach additional pages. | | |
| ● Preparation of specifications | _____ | _____ |
| ● Reviews/technical evaluations | _____ | _____ |
| ● Supervision of actual work | _____ | _____ |
| ● Subcontractor costs | N/A | _____ |
| Briefly describe the task(s) performed by the subcontractor(s) in comments below. | | |
| TOTALS | | _____ |

Comments:

SURFACE WATER PATHWAY FACTORS

(Page 5 of 14)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|----------------------------|--|
| <u>OBSERVED RELEASE</u> | | |
| Review of Previous Sampling Data to Support an Observed Release | | |
| ● Collection/review of existing background information | _____ | _____ |
| ● Number of aqueous samples _____ | _____ | _____ |
| ● Number of sediment samples _____ | _____ | _____ |
| ● Number of benthic samples _____ | _____ | _____ |
| * Would these samples normally have been collected for HRS purposes? _____ | | |
| * Was previous sampling conducted to support the evaluation of these surface water threats or items? | | |
| _____ Observed release | | _____ Human food chain |
| _____ Drinking water | | _____ Environmental |
| _____ Recreation | | _____ Other (describe in comments below) |

Sampling Conducted to Support an Observed Release

| | | |
|--|-------|------------------------|
| ● Number of aqueous samples _____ | _____ | _____ |
| ● Number of sediment samples _____ | _____ | _____ |
| ● Number of benthic samples _____ | _____ | _____ |
| * Would sampling have been conducted if there had been no previous data? _____ | | |
| * Was sampling conducted to support the evaluation of other surface water threats? _____ | | |
| _____ Drinking water | | _____ Human food chain |
| _____ Recreation | | _____ Environmental |

SURFACE WATER PATHWAY FACTORS

(Page 6 of 14)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|----------------------------|--------------|
| <u>OBSERVED RELEASE (concluded)</u> | | |
| Field Screening Conducted to Support an Observed Release | | |
| ● Number of aqueous samples _____ | _____ | _____ |
| ● Number of sediment samples _____ | _____ | _____ |
| TOTALS | ===== | ===== |
| Comments: | | |

Attribution of Contaminants

| | | |
|---|--------------|--------------|
| ● Collection/review of existing background information | _____ | _____ |
| * Do other nearby sources of potential surface water contamination exist? _____ | | |
| * Do nearby sources of potential surface water contamination have similar contaminants to those associated with the site? _____ | | |
| * Was an observed surface water release previously established for the site? _____ | | |
| If yes, for which surface water body? _____ | | |
| ● Evaluation of recently collected data | _____ | _____ |
| * Was an observed surface water release established for the site? _____ | | |
| If yes, for which surface water body? _____ | | |
| TOTALS | ===== | ===== |

Comments:

SURFACE WATER PATHWAY FACTORS

(Page 7 of 14)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|---|----------------------------|-------------|
| <u>RELEASE LIKELIHOOD</u> | | |
| Runoff Value | | |
| ● Background data collection/review | _____ | _____ |
| ● Field observations | _____ | _____ |
| * How was the drainage area determined? _____ Topo maps _____ Aerial photos _____ Other (describe in comments below) | | |
| Distance to Surface Water | | |
| ● Background data collection/review | _____ | _____ |
| ● Field observations/measurements | _____ | _____ |
| Overland Containment | | |
| ● Background data collection/review | _____ | _____ |
| ● Field observations/measurements | _____ | _____ |
| Flood Containment | | |
| ● Background data collection/review | _____ | _____ |
| ● Field observations/measurements | _____ | _____ |
| * Was a professional engineer used to verify containment? _____ | | |
| Flood Frequency | | |
| ● Background data collection/review | _____ | _____ |
| * Were floodplain maps available? _____ | | |
| ● Field observations | _____ | _____ |
| TOTALS | _____ | _____ |
| Comments: | | |

SURFACE WATER PATHWAY FACTORS

(Page 8 of 14)

LEVEL OF
EFFORT

COST

WASTE CHARACTERISTICS (Pathway Specific)

Waste Quantity (Multiple Surface Water Threats)

- Evaluation methodology

_____ Hazardous constituent quantity

_____ Source volume

_____ Site wastestream quantity as deposited

_____ Source area

_____ Source waste quantity as deposited

- Assignment of HRS value

- * Was the same waste quantity value assigned for other pathways? _____

If no, describe difference in comments below.

Toxicity/Persistence (Multiple Surface Water Threats)

- Assignment of HRS value

- * Were look-up table values available for site-specific substances? _____

- * Was the default value assigned for persistence? _____

- * What predominant water category was selected?

_____ River/stream

_____ Lake

TOTALS

Comments:

SURFACE WATER PATHWAY FACTORS

(Page 9 of 14)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|----------------------------|-------------|
| <u>WASTE CHARACTERISTICS</u> (Pathway Specific) (continued) | | |
| Bioaccumulation Potential (Human Food Chain Threat) | | |
| <ul style="list-style-type: none"> ● Assignment of HRS value | _____ | _____ |
| <ul style="list-style-type: none"> * Were look-up table values available for site-specific substances? _____ | | |
| <ul style="list-style-type: none"> * Were the following data available? | | |
| <div style="display: flex; justify-content: space-between; padding: 0 20px;"> _____ BCF _____ Log Pow _____ Water solubility </div> | | |
| <ul style="list-style-type: none"> * Was the default value assigned? _____ | | |
| | TOTALS | ===== |
| Comments: | | |

| | | |
|---|---------------|-------|
| Dose Adjusting Factor (Recreation Threat) | | |
| <ul style="list-style-type: none"> ● Assignment of HRS value | _____ | _____ |
| <ul style="list-style-type: none"> * Were look-up table values available for site-specific substances? _____ | | |
| | TOTALS | ===== |
| Comments: | | |

SURFACE WATER PATHWAY FACTORS

(Page 10 of 14)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|----------------------------|-------------|
| <u>WASTE CHARACTERISTICS</u> (Pathway Specific) (concluded) | | |
| Ecosystem Toxicity (Environmental Threat) | | |
| ● Assignment of HRS values | _____ | _____ |
| * Were look-up table values available for site-specific substances? _____ | | |
| * Which sensitive environments were evaluated? | | |
| _____ Freshwater _____ Saltwater | | |
| TOTALS | ===== | ===== |
| Comments: | | |

SURFACE WATER PATHWAY FACTORS

(Page 11 of 14)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|----------------------------|--------------|
| <u>DRINKING WATER THREAT TARGETS</u> | | |
| Surface Water Use | | |
| ● Background data collection/review | _____ | _____ |
| MEI | | |
| ● Background data collection/review | _____ | _____ |
| ● Field observations | _____ | _____ |
| Population | | |
| ● Background data collection/review | _____ | _____ |
| * Were county census density data used? _____ | | |
| * Was municipal water-supply information utilized? _____ | | |
| * Were any automated databases used? _____ | | |
| If yes, describe in comments below. | | |
| ● Review of previous sampling data | _____ | _____ |
| - Number of aqueous samples _____ | _____ | _____ |
| - Number of sediment samples _____ | _____ | _____ |
| * Would these samples normally have been collected for HRS purposes? _____ | | |
| ● Drinking water targets sampling | | |
| - Number of aqueous samples _____ | _____ | _____ |
| - Number of sediment samples _____ | _____ | _____ |
| TOTALS | ===== | ===== |

Comments:

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Comments:

SURFACE WATER PATHWAY FACTORS

(Page 13 of 14)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|----------------------------|--------------|
| <u>RECREATION THREAT TARGETS</u> | | |
| Actual Recreation Contamination | | |
| ● Review of previous sampling data | _____ | _____ |
| - Number of aqueous samples _____ | _____ | _____ |
| - Number of sediment samples _____ | _____ | _____ |
| * Would these samples normally have been collected for HRS purposes? _____ | | |
| ● Sampling conducted | | |
| - Number of aqueous samples _____ | _____ | _____ |
| - Number of sediment samples _____ | _____ | _____ |
| Potential Recreation Contamination/Recreation Use Population | | |
| ● Background data collection/review | _____ | _____ |
| * Were any automated databases used? _____ | | |
| If yes, describe in comments below. | | |
| * Was quantitative visitor/usage information available? _____ | | |
| ● Field observations | _____ | _____ |
| TOTALS | ===== | ===== |

Comments:

SURFACE WATER PATHWAY FACTORS

(Page 14 of 14)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|----------------------------|-------------|
| <u>ENVIRONMENTAL THREAT TARGETS</u> | | |
| Actual Environmental Contamination | | |
| ● Review of previous sampling data | _____ | _____ |
| - Number of aqueous samples _____ | _____ | _____ |
| - Number of sediment samples _____ | _____ | _____ |
| - Number of other samples _____ | _____ | _____ |
| * Would these samples normally have been collected for HRS purposes? _____ | | |
| ● Environmental targets sampling | | |
| - Number of aqueous samples _____ | _____ | _____ |
| - Number of sediment samples _____ | _____ | _____ |
| - Number of other samples _____ | _____ | _____ |
| Potential Environmental Contamination | | |
| ● Background data collection/review | _____ | _____ |
| * Was Natural Heritage Program information used? _____ | | |
| ● Field observations | _____ | _____ |
| TOTALS | _____ | _____ |

Comments:

SUMMARY OF ONSITE EXPOSURE PATHWAY FACTORS
(Page 1 of 8)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|---------------------------------------|----------------------------|--------------------|
| SUBCONTRACTOR ASSISTANCE | <u>2</u> | <u>2</u> |
| RESIDENT POPULATION THREAT | | |
| • Likelihood of Exposure | <u>25</u> | <u>1250</u> |
| • Targets | <u>4</u> | <u>200</u> |
| WASTE CHARACTERISTICS | <u>2</u> | <u>2</u> |
| NEARBY POPULATION THREAT | | |
| • Likelihood of Exposure | <u>12</u> | <u>600</u> |
| • Targets | <u>4</u> | <u>200</u> |
| ONSITE EXPOSURE PATHWAY TOTALS | <u><u>45</u></u> | <u><u>2250</u></u> |

Comments:

ON-SITE EXPOSURE PATHWAY FACTORS

(Page 2 of 8)

SUBCONTRACTOR ASSISTANCE (Pathway Specific)

For multiple subcontracts, attach additional pages.

- Preparation of specifications
- Reviews/technical evaluations
- Supervision of actual work
- Subcontractor costs

Briefly describe the task(s) performed by the subcontractor(s) in comments below.

TOTALS

Comments:

ONSITE EXPOSURE PATHWAY FACTORS

(Page 3 of 8)

| | LEVEL OF EFFORT | COST |
|--|--------------------------------|------|
| <u>RESIDENT POPULATION THREAT LIKELIHOOD OF EXPOSURE</u> | | |
| Review of Previous Sampling Data to Document Observed Contamination | | |
| • Collection/review of existing background information | 5 | 2500 |
| • Number of soil samples 2 | 2 | 2 |
| • Number of source samples 2 | 2 | 2 |
| • Number of leachate/seepage samples 2 | 2 | 2 |
| • Number of terrestrial sensitive environments sampled 2 | 2 | 2 |
| • Number of other samples 2 | 2 | 2 |
| * Would these samples normally have been collected for HRS purposes? YES | | |
| * Why was previous sampling conducted? N/A | | |
| N/A Observed contamination | N/A Resident target population | |
| N/A Waste quantity | N/A Waste characteristics | |
| N/A Other (describe in comments below) | | |

Sampling Conducted to Document Observed Contamination

| | | |
|--|-----------------------------|------|
| • Number of soil samples 20 | CONDUCTED UNDER AIR PATHWAY | |
| • Number of source samples 5 | 12 | 600 |
| • Number of leachate/seepage samples 2 | 2 | 2 |
| • Number of terrestrial sensitive environments sampled 2 | 2 | 2 |
| • Number of other samples 2 | 2 | 2 |
| * Would sampling have been conducted if there had been no previous data? YES | | |
| TOTALS | 17 | 3100 |

ONSITE EXPOSURE PATHWAY FACTORS
(Page 4 of 8)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|----------------------------|-------------|
| <u>RESIDENT POPULATION THREAT LIKELIHOOD OF EXPOSURE (concluded)</u> | | |
| Field Screening Conducted to Document Observed Contamination | | |
| • Number of soil samples <u>2</u> | <u>2</u> | <u>2</u> |
| • Number of source samples <u>2</u> | <u>2</u> | <u>2</u> |
| • Number of leachate/seepage samples <u>2</u> | <u>2</u> | <u>2</u> |
| • Number of terrestrial sensitive environments sampled <u>2</u> | <u>2</u> | <u>2</u> |
| • Number of other samples <u>2</u> | <u>2</u> | <u>2</u> |
| * Were samples taken to determine the areal extent of contamination (i.e., waste quantity)? <u>2</u> | | |
| TOTALS | <u>17</u> | <u>3122</u> |
| Comments: | | |

Attribution of Contaminants

| | | |
|---|----------|------------|
| • Collection/review of existing background information | <u>4</u> | <u>200</u> |
| * Do other nearby sources of potential surficial contamination exist? <u>NO</u> | | |
| * Do nearby sources of potential surficial contamination have similar contaminants to those associated with the site? <u>NO</u> | | |
| * Was observed contamination previously established for the site? <u>YES</u> | | |
| • Evaluation of recently collected data | <u>4</u> | <u>200</u> |
| * Was observed contamination established for the site? <u>YES</u> | | |
| TOTALS | <u>8</u> | <u>400</u> |
| Comments: | | |

ONSITE EXPOSURE PATHWAY FACTORS
(Page 5 of 8)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|----------------------------|-------------------|
| <u>RESIDENT POPULATION THREAT TARGETS</u> | | |
| High-Risk/Total Populations <i>NOT EVALUATED</i> | | |
| ● Review of previous sampling data | <u>2</u> | <u>100</u> |
| - Number of samples from adjacent properties _____ | <u>2</u> | <u>2</u> |
| * Were adjacent properties contaminated significantly above background levels? <u>ON</u> | | |
| * Would these samples normally have been collected for HRS purposes? <u>YES</u> | | |
| ● Resident population targets sampling <i>NOT EVALUATED</i> | | |
| - Number of samples from adjacent properties _____ | <u>2</u> | <u>2</u> |
| * Were adjacent properties contaminated significantly above background levels? _____ | | |
| ● Field observations | <u>2</u> | <u>2</u> |
| Terrestrial Sensitive Environments | | |
| ● Review of previous sampling data | <u>2</u> | <u>100</u> |
| - Number of samples from sensitive environments <u>2</u> | <u>2</u> | <u>2</u> |
| * Were sensitive environments contaminated significantly above background levels? <u>2</u> | | |
| * Would these samples normally have been collected for HRS purposes? <u>2</u> | | |
| ● Terrestrial sensitive environments sampling | | |
| - Number of samples from sensitive environments <u>2</u> | <u>2</u> | <u>2</u> |
| * Were sensitive environments contaminated significantly above background levels? <u>2</u> | | |
| ● Field observations | <u>2</u> | <u>2</u> |
| TOTALS | <u><u>4</u></u> | <u><u>200</u></u> |

Comments:

ONSITE EXPOSURE PATHWAY FACTORS
(Page 6 of 8)

| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|----------------------------|--------------------|
| <u>WASTE CHARACTERISTICS (Pathway Specific)</u> | | |
| Toxicity | | |
| • Assignment of HRS value | <u>2</u> | <u>1000</u> |
| * Were look-up table values available for site-specific substances? <u>YES</u> | | |
| TOTALS | <u><u>2</u></u> | <u><u>1000</u></u> |
| Comments: | | |

NEARBY POPULATION THREAT LIKELIHOOD OF EXPOSURE

| | | |
|--|----------------------|-------------|
| Waste Quantity (Pathway Specific) | | |
| • Evaluation methodology | | |
| _____ Hazardous constituent quantity | _____ Source volume | |
| _____ Site wastestream quantity as deposited | <u>X</u> Source area | |
| _____ Source waste quantity as deposited | | |
| • Assignment of HRS value | <u>4</u> | <u>2000</u> |
| * Was the same waste quantity amount used to evaluate other pathways? <u>YES</u> | | |
| • Review of previous sampling data to determine waste quantity | <u>2</u> | <u>1000</u> |
| - Number of soil samples <u>0</u> | <u>0</u> | <u>0</u> |
| - Number of other samples <u>0</u> | <u>0</u> | <u>0</u> |
| * Would these samples normally have been collected for HRS purposes? <u>N/A</u> | | |

ONSITE EXPOSURE PATHWAY FACTORS

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| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|---|---|--------------------------|
| <u>NEARBY POPULATION THREAT LIKELIHOOD OF EXPOSURE (concluded)</u> | | |
| Waste Quantity (Pathway Specific) (concluded) | | |
| <ul style="list-style-type: none"> • Sampling conducted to determine waste quantity <ul style="list-style-type: none"> - Number of soil samples <u>20</u> - Number of other samples <u>2</u> * Would sampling have been conducted if there had been no previous data? <u>YES</u> • Field screening conducted to determine waste quantity <ul style="list-style-type: none"> - Number of soil samples <u>2</u> - Number of other samples <u>2</u> | <u>HOURS INCLUDED UNDER AIR PATHWAY</u> | |
| | <u>2</u> | <u>2</u> |
| | <u>2</u> | <u>2</u> |
| Accessibility/Frequency of Use | | |
| <ul style="list-style-type: none"> • Background data collection/review • Field observations | <u>4</u> <u>2</u> | <u>200</u> <u>100</u> |
| TOTALS | <u>12</u> | <u>600</u> |

Comments:

ONSITE EXPOSURE PATHWAY FACTORS
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| | <u>LEVEL OF EFFORT</u> | <u>COST</u> |
|--|-----------------------------|-------------|
| <u>NEARBY POPULATION THREAT TARGETS</u> | | |
| Population | | |
| ● Background data collection/review | <u>HOURS INCLUDED UNDER</u> | <u>AIR</u> |
| * Were any automated databases used? <u>NO</u> | | |
| If yes, describe in comments below. | | |
| * Were county census density data used? <u>YES</u> | | |
| * Is the population a subset of air target information? <u>YES</u> | | |
| ● Field observations | <u>4</u> | <u>200</u> |
| TOTALS | <u>4</u> | <u>200</u> |
| Comments: | | |